

Notice of Allowability

Application No.

08/929,019

Examiner

Jefferey F Harold

Applicant(s)

DECRAENE, PAUL T

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 10/25/04.
2. ☒ The allowed claim(s) is/are 1-19 and 21-23.
3. ☒ The drawings filed on 15 September 1997 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Allowable Subject Matter

1. **Claims 1-19 and 21-23** are allowed.
2. The following is an examiner's statement of reasons for allowance:

Regarding **claim 1**, the prior art of record discloses a wall rack assembly comprising: a shelf assembly for selectively receiving at least one network interface unit; at least one customer interface module connector being operatively connected to the at least one network interface unit when the at least one network interface unit is selectively received in the shelf assembly; however, the prior art of record fails to disclose or fairly suggest a customer interface module selectively connectable to the at least one customer interface module connector; wherein the customer interface module comprises at least one customer line connector and an edge connector for connecting with the at least one customer interface module connector, the at least one customer line connector being operatively connected to the edge connector.

Regarding **claim 4**, the prior art of record discloses an improved shelf assembly for telecommunications network interface units, the shelf assembly including a printed circuit board for interconnecting customer lines with network service provider lines through the network interface units, the customer lines being connected to a customer interface which is operatively connected to the printed circuit board, the network service provider lines being connected to the printed circuit board via connectors provided on the printed circuit board, at least two customer interface module connectors provided on the printed circuit board, however, the prior art of record fails to disclose or fairly

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suggest wherein the customer interface comprises a customer interface module having at least one customer line connector and an edge connector for connecting with the at least two customer interface module connectors, the at least one customer line connector being operatively connected to the edge connector, the customer interface module being selectively connected to either of at least two customer interface module connectors to afford flexibility in mounting the shelf assembly.

Regarding **claim 6**, the prior art of record discloses a shelf assembly for receiving a plurality of telecommunications network interface units and for interconnecting customer lines with network provider lines, the shelf assembly comprising: a printed circuit board; a plurality of network interface unit connectors on the printed circuit board for receiving the network interface units; however, the prior art of record failed to disclose or fairly suggest at least two customer interface module connectors for selectively and independently receiving a customer interface module; wherein each of the plurality of network interface unit connectors is operatively connected to each of the at least two customer interface module connectors.

Regarding **claim 9**, the prior art of record discloses a shelf assembly for receiving a plurality of telecommunications network interface units and for interconnecting customer lines with network service provider lines, the shelf assembly comprising: a printed circuit board; a plurality of network interface unit connectors on the printed circuit board for receiving the network interface units; however, the prior art of record fails to disclose or fairly suggest at least two customer interface module connectors for selectively and independently receiving a customer interface module;

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wherein the shelf assembly further includes a top flange, a bottom flange, a first side flange and a second side flange, the top, bottom, first and second side flanges being positioned generally perpendicular to the printed circuit board and forming a housing area for the network interface units; and wherein the at least two customer interface module connectors include a first customer interface module connector positioned along the first side flange and a second customer interface module connector positioned along the second side flange; and wherein the customer interface module includes at least one customer line connector, the customer lines being connected to the at least one customer line connector in a direction parallel to the printed circuit board.

Regarding **claim 10**, the prior art of record discloses a shelf assembly for receiving a plurality of telecommunications network interface units and for interconnecting customer lines with network service provider lines, the shelf assembly comprising: a printed circuit board; a plurality of network interface unit connectors on the printed circuit board for receiving said network interface units; however, the prior art of record fails to disclose or fairly suggest at least two customer interface module connectors for selectively and independently receiving a customer interface module; wherein the shelf assembly further includes a top flange, a bottom flange, a first side flange and a second side flange, the top, bottom, first and second side flanges being positioned generally perpendicular to the printed circuit board and forming a housing area for the network interface units; and wherein the printed circuit board includes at least one network service provider line connector, the network service provider lines

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being connected to the at least one network service provider line connector in a direction perpendicular to the printed circuit board.

Regarding **claim 15**, the prior art of record discloses a shelf assembly for receiving a plurality of telecommunications network interface units and for interconnecting customer lines with network service provider lines, the shelf assembly comprising: a printed circuit board; a plurality of network interface unit connectors on the printed circuit board for receiving said network interface units; however, the prior art of record fails to disclose or fairly suggest at least two customer interface module connectors for selectively and independently receiving a customer interface module; wherein the shelf assembly further includes a top flange, a bottom flange, a first side flange and a second side flange, the top, bottom, first and second side flanges being positioned generally perpendicular to the printed circuit board and forming a housing area for the network interface units; and the shelf assembly further comprising a cover for selectively enclosing the printed circuit board, the top flange, the bottom flange, the first side flange and the second side flange; and wherein the shelf assembly is removably mounted to a back mounting plate; and wherein the back mounting plate includes locking slots, and the cover includes locking tabs which selectively engage the cover locking slots to secure the cover over the shelf assembly.

Regarding **claim 17**, the prior art of record discloses a wall rack assembly for selectively receiving and housing a plurality of network interface units and for interconnecting customer lines with network service provider lines; the assembly providing flexibility in mounting the assembly in the presence of an obstruction and

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comprising: a shelf assembly having a plurality of network interface unit connectors, however, the prior art of record fails to disclose or fairly suggest a first customer interface module connector and a second customer interface module connector, wherein each of the plurality of network interface unit connectors is operatively connected to each of the first customer interface module connector and the second customer interface module connector; and a customer interface module selectively and removably connectable to one of the first customer interface module connector and the second customer interface module, the customer interface module being connected to the first customer interface module connector when the second customer interface module connector is proximate the obstruction and the customer interface module being connected to the second customer interface module connector when the first customer interface module connector is proximate the obstruction.

Regarding **claim 19**, the prior art of record discloses a method of mounting a wall telecommunications rack assembly in a difficult to access location, the method comprising the steps of: providing a shelf assembly having a plurality of network interface unit connectors, however, the prior art of record fails to disclose or fairly suggest at least a first customer interface module connector and a second customer interface module connector; operatively connecting the plurality of network interface unit connectors to the at least a first customer interface module connector and a second customer interface module connector; providing a customer interface module selectively and removably attachable to the shelf assembly; and selectively attaching the customer

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interface module to one of the at least a first customer interface module connector and a second customer interface module connector.

Regarding **claim 22**, the prior art of record discloses a shelf assembly for receiving a plurality of telecommunications network interface units and for interconnecting customer lines with network service provider lines, the shelf assembly comprising: a printed circuit board; a plurality of network interface unit connectors on the printed circuit board for receiving the network interface units; however, the prior art of record fails to disclose or fairly suggest at least two customer interface module connectors for selectively and independently receiving a customer interface module; wherein the customer interface module comprises at least one customer line connector and an edge connector for connecting with one of the at least two customer interface module connectors, the at least one customer line connector being operatively connected to the edge connector.

Regarding **claim 23**, the prior art of record discloses a customer interface module comprising: a housing; a plurality of customer line connectors in the housing; and an edge connector on the housing, the edge connector being operatively connected to the plurality of customer line connectors; however, the prior art of record fails to disclose or fairly suggest wherein the edge connector is selectively, removably receivable in at least one corresponding connector on a telecommunications shelf assembly having a plurality of network interface unit connectors, wherein each of the plurality of network interface unit connectors are connected to the at least one corresponding connector.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferey F Harold whose telephone number is 703-306-5836. The examiner can normally be reached on Monday - Friday 9 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JFH
January 3, 2005



Jefferey F Harold
Examiner
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